

WHAT IS CLAIMED IS:

1. A power converter, comprising:
a first circuit converting an AC input voltage to a first predetermined DC output voltage;
5 a second circuit converting a DC input voltage to a second predetermined DC output voltage; and
a third circuit having a feedback circuit comprising a single feedback loop, said third circuit receiving said first and second predetermined output voltages and providing a selectable DC output voltage at a first output,
10 wherein said single feedback loop is adapted to regulate both said first and second circuits to provide said selectable DC output voltage when said AC and DC input voltages are supplied to respective said first and second circuits.
2. The power converter of Claim 1 wherein said feedback circuit
15 includes respective first and second optical devices.
3. The power converter of Claim 2 wherein said optical devices are photo-couplers coupled in series.
- 20 4. The power converter of Claim 2 wherein said respective first and second predetermined DC output voltages are determined as a function of said respective first and second optical devices.
- 25 5. The power converter of Claim 2 wherein said first optical device is coupled to said first circuit, wherein said first circuit, in response to said AC input voltage, provides said first predetermined DC output voltage.

6. The power converter of Claim 2 wherein said second optical device is coupled to said second circuit, wherein said second circuit, in response to said DC input voltage, provides said second predetermined DC output voltage.

5 7. The power converter of Claim 2 wherein said first circuit and said second circuit comprise pulse width modulated controllers controlled by said respective optical device.

10 8. The power converter of Claim 1 further comprising a fifth circuit comprising a filter circuit adapted to filter said first and second predetermined DC output voltages and provide a respective first and second filtered DC output voltage at a common node.

15 9. The power converter of Claim 1 wherein said first and second predetermined DC output voltages are substantially the same and are provided to a common node.

20 10. The power converter of Claim 1 comprising a fourth circuit coupled to said first output and providing a second DC output voltage at a second output, wherein said second DC voltage output is independent of, and substantially lower than said selectable DC output voltage.

25 11. The power converter of Claim 1 wherein said first circuit comprises a AC-to-DC flyback converter, wherein said AC-to-DC flyback converter is adapted to provide a DC output voltage of between 15VDC and 24VDC.

12. The power converter of Claim 1 wherein said second circuit comprises a DC-to-DC boost converter, wherein said DC-to-DC boost converter is adapted to provide a DC output voltage of between 15VDC and 24VDC.

5 13. The power converter of Claim 1 wherein said fourth circuit comprises a DC-to-DC buck converter providing said second DC output voltage, said DC-to-DC buck converter providing said second DC output voltage of between 3VDC and 15VDC.

10 14. The power converter of Claim 1 wherein said first and second predetermined DC output voltages of said respective first and second circuit are established via said removable program module, wherein said removable program module comprises a key adapted to be removably coupled to said power converter.

15 15. The power converter of Claim 1 wherein said removable program module comprises a key having a resistor, wherein said first and second DC output voltage are a function of the value of said resistor.

20 16. The power converter of Claim 15 wherein said key establishes an output voltage function.

 17. The power converter of Claim 15 wherein said key establishes an output current limiting function.

25 18. The power converter of Claim 1 wherein said first circuit is adapted to receive an AC input voltage having a range of 90VAC to 265VAC.

19. The power converter of Claim 1 wherein said second circuit is adapted to receive a DC input voltage having a range of 11VDC to 16VDC.

20. The power converter of Claim 1 wherein said first and second
5 predetermined DC output voltages are programmable as a function of said program module.

21. The power converter of Claim 1 wherein said fourth circuit
comprises a second removable program module, wherein said second DC output
10 voltage at said second output is a function of said different associated second removable program modules.

22. The power converter of Claim 1 wherein said fifth circuit further
includes a protection circuit, said protection circuit provides an over-voltage
15 protection function.

23. The power converter of Claim 1 wherein the first circuit and the
second circuit receive their respective AC input voltage and DC input voltages at
a common single connector.
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24. A power converter, comprising:
a first circuit converting an AC input voltage to a first
predetermined DC output voltage;
a second circuit converting a DC input voltage to a second
5 predetermined DC output voltage;
a third circuit having a single optical feedback loop and receiving
said first and second predetermined DC voltages and, in response thereto,
providing a selectable DC output voltage at a first output, wherein said selectable
DC output voltage is established as a function of a removable program module.
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25. The power converter of Claim 24 wherein said feedback circuit
includes respective first and second optical devices.
26. The power converter of Claim 24 wherein said optical devices are
15 photo-couplers coupled in series.
27. The power converter of Claim 24 wherein said respective first and
second predetermined DC output voltages are determined as a function of said
respective first and second optical devices.
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28. The power converter of Claim 24 wherein said first optical device
is coupled to said first circuit, wherein said first circuit, in response to said AC
input voltage, provides said first DC output voltage.
29. The power converter of Claim 24 wherein said second optical
25 device is coupled to said second circuit, wherein said second circuit, in response
to said DC input voltage, provides said second DC output voltage.

30. The power converter of Claim 24 wherein said first circuit and said second circuit comprise pulse width modulated controllers controlled by said single optical feedback loop.

5 31. The power converter of Claim 24 comprising a fourth circuit coupled to said first output and providing a second DC output voltage at a second output, wherein said second DC voltage output is independent of, and substantially lower than said selectable DC output voltage.

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